



L300

GNSS receiver



PRECISION
you can trust



IMU TILT



UHF RADIO



WEBUI



FULL GNSS

Performance specification

Satellite signals tracked simultaneously	GPS: L1C/A, L1C, L2P(Y), L2C, L5
	GLONASS: L1, L2, L3
	BEIDOU: B1, B2, B3, B1C, B2a, B2b
	GALELO: E1, E5a, E5bE6
	QZSS: L1, L2, L5, L6
SBAS: L1, L5	IRNSS: L5
	SBAS: L1, L5
Channels	1408 tracking Channels
Cold start	<60 s
Hot start	<15 s
Positioning output rate	1Hz - 20Hz
Signal Reacquisition	<1s
RTK Initialization time	<10s
Initialization Reliability	>99.99%
Time accuracy	20 ns

Positioning¹

Code differential GNSS positioning	Horizontal: 0.25 m ± 1 ppm RMS
	Vertical: 0.50 m ± 1 ppm RMS
SBAS differential positioning accuracy ² : typically	<5m 3DRMS
	Static GNSS surveying
Horizontal: 2.5 mm ± 0.5 ppm RMS	Vertical: 5 mm ± 0.5 ppm RMS

Real Time Kinematic Surveying

Single Baseline < 30 KM	Horizontal: 8 mm ± 1 ppm RMS
	Vertical: 15 mm ± 1 ppm RMS
Horizontal: 8 mm ± 0.5 ppm RMS	Vertical: 15 mm ± 0.5 ppm RMS

Network RTK³

Horizontal: 8 mm ± 0.5 ppm RMS	Vertical: 15 mm ± 0.5 ppm RMS
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HARDWARE

PHYSICAL

Material	Magnesium alloy
Dimensions	150mm x 71mm (without bottom connector 60mm)
Weight	≤1.0 Kg
Operating temperature	-40°C to +75°C
Storage temperature	-55°C to +85°C
Protection IP	IP67 dust proof, protected from 30min immersion to depth of 1m
Shock	Survive a 2m pole drop onto concrete
Vibration	MIL-STD-883C
Humidity	100% condensing

1- Precision and reliability may be subject to anomalies due to multipath, obstructions, satellite geometry, and atmospheric conditions. The specifications stated recommend the use of stable mounts in an open sky view, IGM and multipath clear environment, optimal GNSS constellation configurations. Base lines longer than 30 km require precise ephemerides and reacquiring up to 24 hours may be required to achieve the high precision static specification.

2- Depends on SBAS system performance

3- Network RTK PPM values are referenced to the closest physical base station and depends on network performance.

ELECTRICAL

Power: 9-24V DC, external power input on 5 pin LEMO port
Support USB Type-C fast charging
Internal 6800mAh lithium-ion battery

Battery Life:
Rever Mode: 12 hours
Base Mode: 7 hours
Static Mode: 15 hours

Communication & Data Storage

I/O Interface

LEMO port (5pin) Supports power input, serial port control, and external radio communication
USB Type-C port Data download / Charging
Sim card slot Supports Nano-SIM
Antenna port UHF antenna interface

Radio modem

Transmit power 1/2 W switchable, Work range can reach to 15km under AlphaTalk15 protocol
Frequency band 410MHz-470MHz; supports to set the frequency
Protocols AlphaTalk15, TrimTalk450, SOUTH, SatelPCC-EOT

Cellular

Integrated full frequency multi-band 4G modem, supports WCDMA/CDMA2000/TDD-LTE/FDD-LTE

WiFi

802.11 b/g standard, access point & client mode, supports access to hotspot for connection transmission

Bluetooth

Fully integrated Bluetooth V4.0, range < 50m

Data format

RTCM2x, RTCM3x, CMR & CMR+, cMFR

Dat, BINEX, NMEA outputs

Storage

32GB internal memory, supports cyclic storage; with ability to collect over one year raw observation based on 5 seconds interval

Others

System Integration

OS system: Intelligent LINUX operating system
Tilt Compensation IMU up to 60° (Calibration free)
Relay station CORS relay, Radio relay
Supported controllers All android devices with supported software

Design

Button Power key
Indicator Power indicator, data link indicator, satellite indicator, Bluetooth indicator
Voice Intelligent voice prompts
WEBUI Support WEBUI configuration

PT. ETRAX INDO SEJAHTERA

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